

WHAT IS CLAIMED IS:

1. A microcomputer with a debug supporting function in which a program to be executed by a CPU is debug using an in-circuit emulator, the microcomputer comprising:

5 a debug target circuit which has the CPU and in which supply and stop of drive power can be arbitrarily switched; and

a debugging circuit which has an interface module to the in-circuit emulator and which holds a debug related 10 setting by drive power supplied in a condition in which power supply to the debug target circuit is stopped.

2. The microcomputer according to claim 1, further comprising a clip circuit which clips a supply signal from 15 the debug target circuit to the debugging circuit when supply of drive power to the debug target circuit is stopped.

3. The microcomputer according to claim 2, further comprising a clip control terminal to which is supplied from 20 outside with a control signal to switch the clip circuit in accordance with whether to directly supply an output signal of the debug target circuit to the debugging circuit or to clip the output signal of the debug target circuit.

25 4. The microcomputer according to claim 2, wherein the

clip circuit is switched whether to directly supply an output signal of the debug target circuit to the debugging circuit or to clip the output signal of the debug target circuit, in response to drive power supplied to the debug target

5 circuit.

5. The microcomputer according to claim 1, wherein the microcomputer is a microcontroller or a microprocessor.

10 6. A microcomputer with a debug supporting function in which a program to be executed by a CPU is debug using an in-circuit emulator, the microcomputer comprising:

      a debug target circuit which has the CPU;

      a debugging circuit which has an interface module to

15 the in-circuit emulator;

      a first power supply terminal which supplies an external drive power to the debug target circuit; and

      a second power supply terminal which supplies an external drive power to the debugging circuit independent

20 of power supply to the debug target circuit.

7. The microcomputer according to claim 6, further comprising a clip circuit which clips a supply signal from the debug target circuit to the debugging circuit when supply

25 of drive power to the debug target circuit is stopped.

8. The microcomputer according to claim 7, further comprising a clip control terminal to which is supplied from outside with a control signal to switch the clip circuit  
5 in accordance with whether to directly supply an output signal of the debug target circuit to the debugging circuit or to clip the output signal of the debug target circuit.

9. The microcomputer according to claim 7, wherein the  
10 clip circuit is switched whether to directly supply an output signal of the debug target circuit to the debugging circuit or to clip the output signal of the debug target circuit, in response to drive power supplied to the debug target circuit.

15

10. The microcomputer according to claim 6, wherein the microcomputer is a microcontroller or a microprocessor.

11. A microcomputer with a debug supporting function in  
20 which a program to be executed by a CPU is debug using an in-circuit emulator, the microcomputer comprising:

a debug target circuit which has the CPU;  
a debugging circuit which has an interface module to the in-circuit emulator;

25 a power supply terminal which supplies an external

drive power to the debugging circuit;  
a switching element which switches supply and stop  
of the external drive power supplied through the power supply  
terminal to the debug target circuit; and

5        a switch control terminal to which a control signal  
for controlling the switching of the switching element is  
supplied from outside.

12.      The microcomputer according to claim 11, further  
10 comprising a clip circuit which clips a supply signal from  
the debug target circuit to the debugging circuit when supply  
of drive power to the debug target circuit is stopped.

13.      The microcomputer according to claim 12, further  
15 comprising with a clip control terminal to which is supplied  
from outside with a control signal to switch the clip circuit  
whether to directly supply an output signal of the debug  
target circuit to the debugging circuit or to clip the output  
signal of the debug target circuit.

20  
14.      The microcomputer according to claim 12, wherein the  
clip circuit is switched whether to directly supply an output  
signal of the debug target circuit to the debugging circuit  
or to clip the output signal of the debug target circuit,  
25 in response to drive power supplied to the debug target

circuit.

15. The microcomputer according to claim 11, wherein the microcomputer is a microcontroller or a microprocessor.